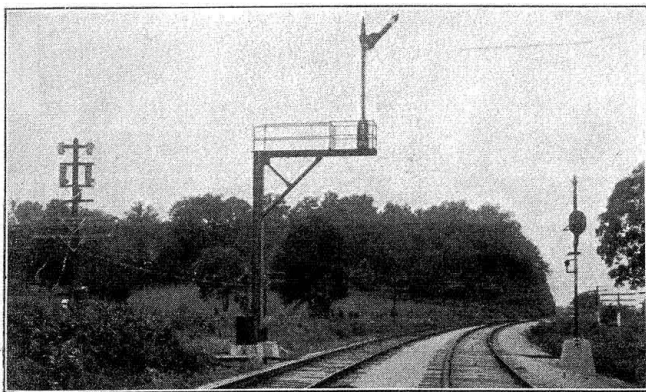


Missouri Pacific Operates Trains in Either Direction on Both Tracks

Light signals for right-hand and semaphores for left-hand running—Written orders reduced

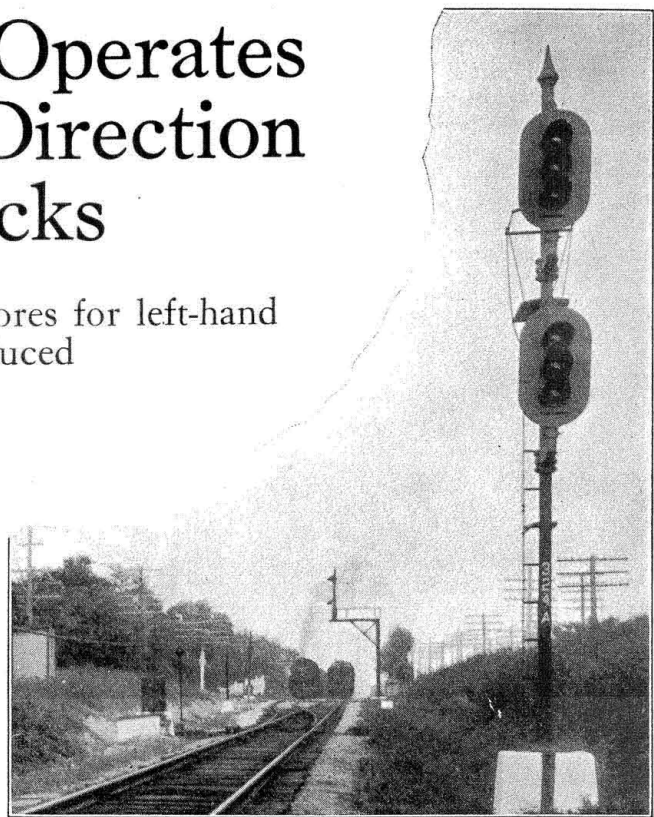
FOR the last three years the Missouri Pacific has been working on the realignment and second tracking of its line between Kirkwood, Mo., and Jefferson City, a distance of 111 miles upon which is handled all freight and passenger traffic of this road between St. Louis and the west. Double track with right hand running has been in use between St. Louis and Kirkwood, 12.9 miles, for about 44 years. The new work has been concentrated at different sections where the greatest relief from congestion could be



Single westbound location, semaphore for left track and light signal for right

secured quickly. For example, between Eureka, 30 miles from St. Louis, and Jefferson City, six separate projects were under way, four of which were placed in service in 1925 and two are well under way so that a total of 52.27 miles of double track is now nearly complete and the 1927 program includes other sections totaling 29.22 miles.

In order to utilize this new double track to the best advantage, trains are operated in either direction on both tracks, depending on traffic conditions, for the purpose of keeping all trains moving on main tracks

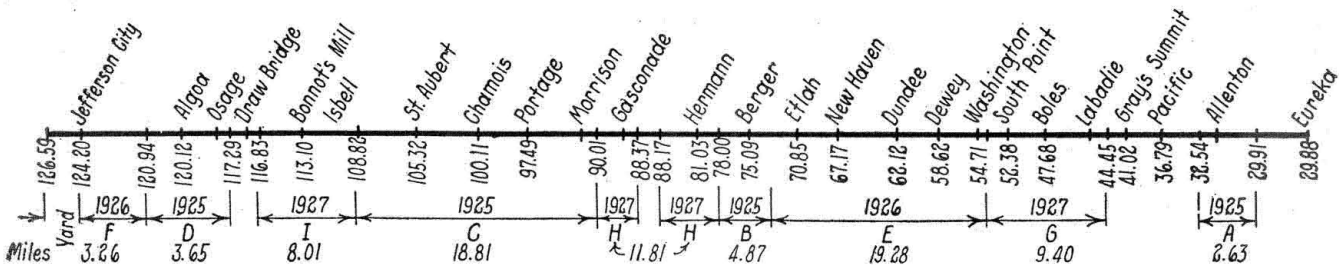


Westbound freight train approaching west end of double track at Allentown as eastbound passenger train passes remote power switch in foreground

order to eliminate any confusion between signals for one direction on the two tracks color-light signals are employed for right hand and semaphore signals for left-hand running. In view of the fact that the single-track line had been equipped with direct current semaphore signals of comparatively modern design in 1904 and 1917, it was practical to use all the semaphore signals and considerable of the balance of this apparatus for the new signaling of the double track.

Layout of Signaling and Method of Operation

As immediate relief was necessary the first problem was to utilize the sections A, B, C and D, as shown in the sketch, which were completed in 1925. Where practicable mechanical interlocking plants were employed to operate the switches and signals at one end of a piece of double track while the other end was operated by remote control switch machines controlled from the same interlocking station or the near-



Section of line where reverse operation on double track is utilized to increase traffic capacity

rather than waiting on sidings for meets. In order to facilitate such operation it was decided to equip each track with automatic signaling in the same manner as a single track railroad; in other words, to provide signals for either direction on each track. In

est telegraph operator's office. On one of the sections a double set of crossovers was installed in approximately the center, these crossovers being interlocked, and the operator at that point controls movements of trains on either track and operates

